QUICK START

DevComDroid uses Device Descriptions (DDs) to access data stored in the memory of the smart field device. These DDs are developed by the manufacturer for their products and, in turn, distributed by the FieldComm Group (FCG) worldwide. The latest DDs are included as part of the DevComDroid installation. Visit the FCG website (www.fieldcommgroup.org) or consult SMAR techsupport for update information.

After run Setup.exe from Install CD/DVD, SMAR DDs Device Library will be available (see 6.5.5.3 for detailed instructions).

The following steps will allow you to install and quickly begin using DevComDroid:

Step 1: Setup Your Android Device

1. Allow installation of apps from sources other than the Play Store
Note: Below is for Samsung Galaxy 4, your Android device may have different key sequences.
a) Press bottom left button on your Android device (Menu Button)
b) Select Settings
c) Select More
d) Select Security
e) Enable Unknown sources
2. Turn on Bluetooth
3. Connect Android device to PC via the USB cable.

Step 2: Install the DD Library

Copy the file "com.procomsol.devcom.dd.apk" to your device. Find it using a File Browser App and click on it to launch the Install App. Once launched, select "Install DD Library" to begin library installation. When done exit the App. See Section 4.2.1 for details.

Step 3: Install the DevComDroid App

1. Copy the file "com.procomsol.devcom.apk" to your device.   Find it using a File Browser App and click on it to launch the Install App. See Section 4.2.2 for details

Step 4: Connect the communication interface

Connecting to a HART device requires special interface hardware. These interfaces ("HART Modems") are available from SMAR and other sources.   The interface should be connected and configured. The preferred interface is a SMAR HI331 Bluetooth HART Interface. See Section 4.2.3 for details.

On initial start the App will prompt you for a HART modem to use. Make sure your modem is turned on and press the "Scan for Bluetooth Devices" button in DevComDroid. Select your HART Modem and perform the Pairing operation. Enter 1234 for the pairing code.

Step 5: Connect to the field device

Find a connection point for the device's 2-wire 4-20mA loop you wish to communicate with. For communications you must have a suitable load resistance or a 250Ω resistor must be placed in series with the device. Using the clips from the HART modem, connect to the HART device. While the HART Communication signal is available anywhere along the 4-20mA wiring, it is often easiest to connect across the field device's terminals (caution should

be observed when working in a hazardous area, many Android devices are not rated for intrinsic safety and should only be connected in a safe area).

Step 6: Activate DevComDroid

Launch DevComDroid by selecting the DevCom icon.

You will be shown the number of days you can run before activation is required. You can use it for up to 10 days before you need to activate it. Activation only needs to occur once. See Section 4.3 for details.

Step 7: Browse the Device

On initial start, DevComDroid sends a command to the field device, establishes a connection, and learns its identity. Once DevComDroid knows the device identity, it locates the device's DD in the library and loads it. From this point forward operation of DevComDroid is determined by the DD provided by the device manufacturer. If a DD for the device is not present, a generic DD will be used.

Menus and data are presented using a tree scheme. The organization of the data in the display window is dictated by the device DD. The display shows menus and data. To navigate to a different menu simply select it. To return to the previous menu, press the "Back" key on the device.

Step 8: Modify the Device's Configuration

The Menu tree allows access to all of the data exactly as described by the device manufacturer's DD. When you find elements of the field device's configuration you want to change, simply click and edit the data. Once you have changed the configuration to suit your needs, press the "Commit" button to send the new data to the HART field device.

Step 9: Performing Maintenance and Testing the Field Device

Many devices perform Methods or Standard Operating Procedures (SOPs) that may need to be performed to ensure the device is in peak condition. These Methods may include calibrating the loop current, trimming the transducer values or performing some diagnostic test on the field device. Methods appear on the screen just like menus, but have a blue background. Click on the Method and it will start running in a new window. The Method will guide you through the process ensuring the procedure is completely and consistently performed. When the Method is complete the window will disappear.

Step 10: Exit

When you are through working on the field device simply exit DevComDroid. Once the App exits, you can then disconnect the HART interface hardware.

Table of Contents

1 INTRODUCTION

The Smart Device Communicator (DevComDroid) allows access to and management of a HART compatible field device's configuration and calibration. This manual provides the information about the Hardware setup, Communication with Smart devices, and functions of DevComDroid.

DevComDroid is unique in that it uses the DD of the connected device to determine what information to display, what variables are available for edit, and what procedures to follow for calibration, setup, and maintenance.

1.1 Acronyms and Definitions

Acronym	Definition
DD	Device Description File. This contains the device information.
DDL	Device Description Language
FCG	FieldComm Group, formerly the HART Communication Foundation (HCF)
DevComDroid	Smart Device Communicator
≡	Window select button

1.2 Conventions Used in This Manual

Following formatting conventions are used in this guide:

Convention	Description
Words in **bold** type	Field names including buttons in the display, or important phrases.
→ Arrow	Window select button followed by the selection to make are separated by →. For example, select ≡ → **New Device** to connect to a new device.
UPPERCASE	Acronyms
UPPERCASE within angle brackets	Command keys For example, press <BACK>.
"Parenthesis"	Names of window elements, like "OK".

1.3 Document Organization

DevComDroid user manual is organized into the following sections:

Section 1   Describes the scope and objective of DevComDroid user manual along with the organization of the remaining part of the manual.

Section 2   Provides an overview of the DevComDroid application and its architecture.

Section 3   Provides the information pertaining to hardware and software requirements for the DevComDroid application.

Section 4   Provides the steps to install, activate, and uninstall the DevComDroid application.

Section 5   Provides the steps to start the DevComDroid application and connecting to field devices.

Section 6   This section explains different aspects of the DevComDroid application and its functionalities.

1.4 Getting Help

If you need help or encounter problems when using DevComDroid or this guide, please contact Smar. See Appendix B for contact information. Please provide the following information.

Create a text description of the problem. If possible, provide the text in event sequence, which will enable the duplication of the problem. Provide information about the system. This information must include:

- DevComDroid version and License ID
- Mobile device information: make, model, and Android version
- HART Device information: make, model, and device revision
- Point of contact: name, telephone number, and e-mail address

2 OVERVIEW OF DEVCOMDROID

Field devices such as flow, pressure, level, temperature transmitters, and valve positioners provide the physical connection to the process. These devices allow the control system to monitor and manipulate process conditions. HART devices maintain a real-time database of process, configuration, identification, and diagnostic information. This information can be accessed using the HART Field Communications Protocol.

HART devices are capable of providing functions and features far beyond the basic task of providing a process input or accepting a control output to manipulate process conditions. Many HART compatible device manufactures create a DD (Device Description) describing all of these functions and features specific to that device. The DD also provides information essential to the successful configuration and calibration of the device.

DevComDroid uses these DD's to access the data stored in a device, providing full configuration and setup support for all registered HART DD's.

DevComDroid accesses and presents field device data based solely on its DD. No other files, information or custom drivers are required. DevComDroid is intended to monitor and configure a single device at a time, it is directly connected to the current loop of the particular device and:

- Provides user interface to configure the HART field device,

- Provides a means to configure and view all the parameters related to HART field device, and

- Provides an option to view the detailed status and diagnostic capability of the device.

DevComDroid allows viewing and modifying of field device parameters based on the DD. Using the device's DD, DevComDroid performs various tests to verify the proper operation of the HART device. DevComDroid runs as a standalone software application and must have a HART compatible modem attached to the system to interrogate the HART device.

3   SYSTEM REQUIREMENTS

The following minimum system requirements are recommended for operation of DevComDroid.

Mobile Device	Processor: ARM or Atom Memory RAM: 1 GB Memory ROM: 2 GB Screen: 960x540 qHD
SD Card	Optional
HART Modem	SMAR HI331 interface or equivalent
Communication Port	Bluetooth 2.0
Operating System	Android Jelly Bean (4.3)

4   DEVCOMDROID INSTALLATION

4.1   Prerequisites

You need to be familiar with the basic functions of the following when installing DevComDroid:

- Android operating system

- HART communication interface

- HART field device

4.2   Installing the DevComDroid Application

4.2.1   DD Library

To install the DevComDroid DD Library, perform the following steps:

Step	Action
1	Copy the file "com.procomsol.devcom.dd.apk" to your device. It is recommended to put it in the "Download" folder on the device.
2	On the Android device, launch the "MyFiles" app or equivalent file browser.
3	Navigate to the directory where you saved the file in Step 1.
4	Click on the file "com.procomsol.devcom.dd.apk".
5	At the "Do you want to install this application?" prompt select "Install".
6	Once the application is installed, press "Open" to launch it. The window below will appear:

7	Tap "Install DD Library" to start the DD Library installation.
8	The status line will say "Installation Complete" when complete.

Step   Action
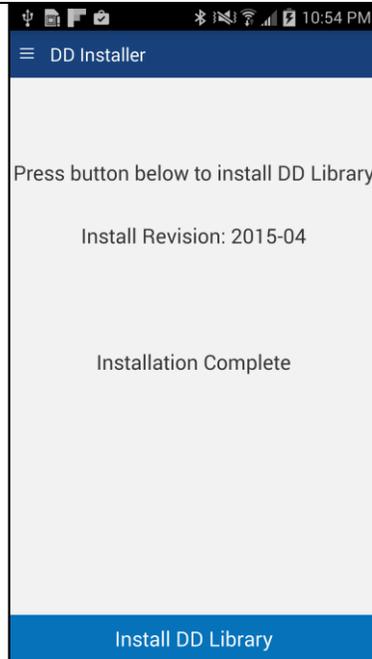
| 9 | Tap ☰ → **Exit** to close the App. |

4.2.2   DevComDroid Application

To install the DevComDroid application, perform the following steps:

Step	Action
1	Copy the file "com.procomsol.devcom.apk" to your device. It is recommended to put it in the "Download" folder.
2	On Android device, launch the "MyFiles" app or equivalent.
3	Navigate to the directory where you saved the file in Step 1.
4	Click on the file "com.procomsol.devcom.apk".
5	At the "Do you want to install this application?" select "Install".

4.2.3   Activating DevComDroid

DevComDroid must be activated for use after 10 days. The following procedure will activate the software (this only needs to occur one time):

Step	Action
1	Launch the DevCom App. The following Licensing Window is displayed after accepting the License Agreement:

Step	Action
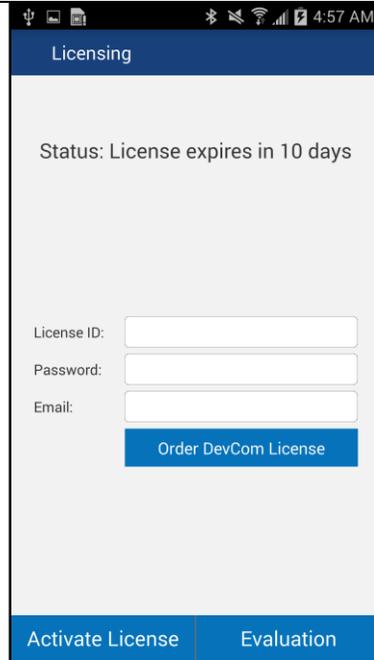
2	To activate your license: Enter the provided License ID and Password from your order. Also enter your Email address if you wish to receive update notifications. Then press "Activate License". Once activated, this window will not appear during start up.
3	To proceed in Evaluation mode, press "Evaluation". You can use the App for 10 days before activation is required.
4	If you need to purchase a license, press Order DevComDroid License and you will be sent to the DevComDroid page or ask to SMAR representative.

4.2.4   Selecting a HART Modem

A HART Modem is required for communication to your HART device. The following procedure is used to select the modem (this only needs to occur one time):

Step	Action
1	The following Window is shown after the Licensing Window:

Step	Action
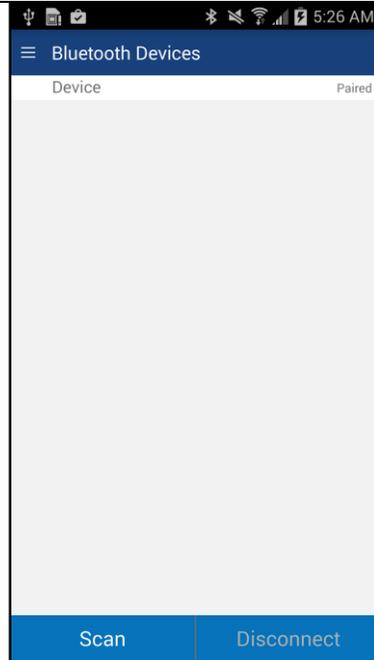
2	Turn your HART modem on and press "Scan".
3	The Window will show all available Bluetooth devices.
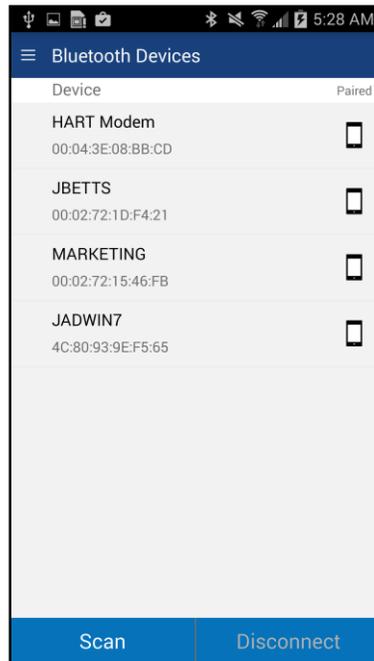
4	Tap your HART Modem. Once a modem is selected, this Window will not appear during start up.

4.3 Connecting to the HART Network

The DevComDroid application communicates with the HART Field Devices through a HART compatible communication interface (e.g., a "HART Modem"). Using this communication interface you will transmit real-time HART data between DevComDroid and the connected HART compatible field device.

There are a wide variety of HART compatible interfaces. Please follow the manufacturer's instruction for connecting your interface to the Mobile. This manual uses the HART modem SMAR HI331. It uses the Bluetooth interface.

Turn the HI331 on. It is assumed you have already performed the Bluetooth pairing procedure. See the HI331 documentation for details. Using the clips on the wires from the HART modem, connect to the device across the 4-20ma signal. If a suitable load resistance is not available, a 250Ω resistor must be placed in series with the device power supply.
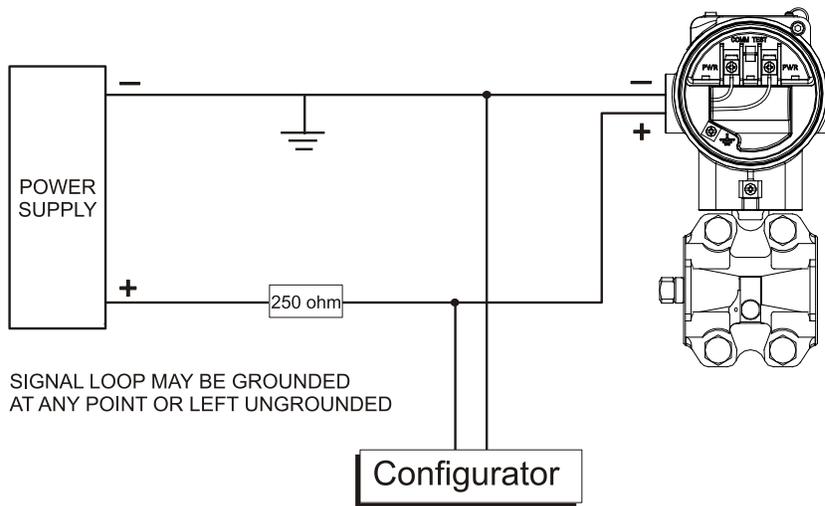
Figure 1 Typical DevComDroid Hardware Setup

4.4 Uninstalling the DevComDroid Application

To uninstall the DevComDroid application, perform the following steps on the Android Device:

Step	Action
1	Go to the Application Manager (or equivalent) screen.
2	Select "DevCom"
3	Select "Uninstall".
4	Select "OK"
5	Select "DevCom DD Library"
6	Select "Uninstall".
7	Select "OK"

5   USING DEVCOMDROID

5.1   Starting DevComDroid

Establish the physical connection between the field device and the HART Modem. With the physical connection established, launch DevComDroid by pressing the DevCom icon on your device screen.

Step	Action

1   Start the DevComDroid App. The following application
window is displayed:
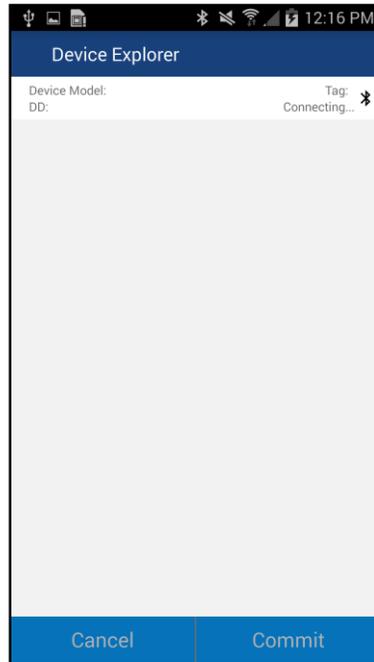
DevComDroid will then automatically identify the field device
and begin communicating with the field device.

2   When the field device is successfully connected to
DevComDroid, the Device Explorer window appears with the
root menu of the device DD shown.

Step   Action
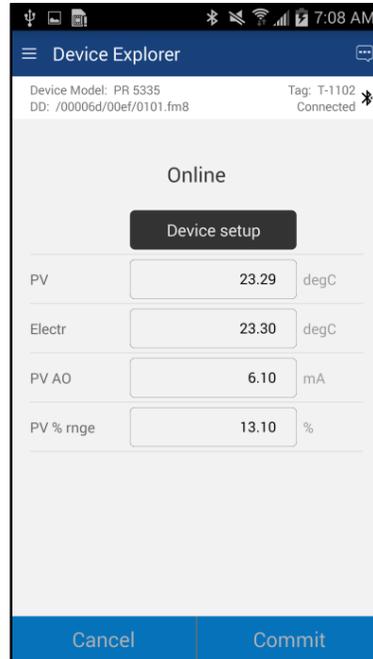
The DevComDroid windows shown in this document are only an example of what you may see when connected to your field device. What you will see is controlled by the DD and the device. The menus, data, status and configurations displayed are specified by the device's manufacturer in the DD itself.

3   Select the required menu to configure or review the field device's data.

5.2   Getting Familiarized with DevComDroid

5.2.1   The Device Explorer Window Fields

The DevComDroid Device Explorer window is designed to provide the operator with valuable information in order to make work quick and easy. Below is a typical Device Explorer window with each field described:
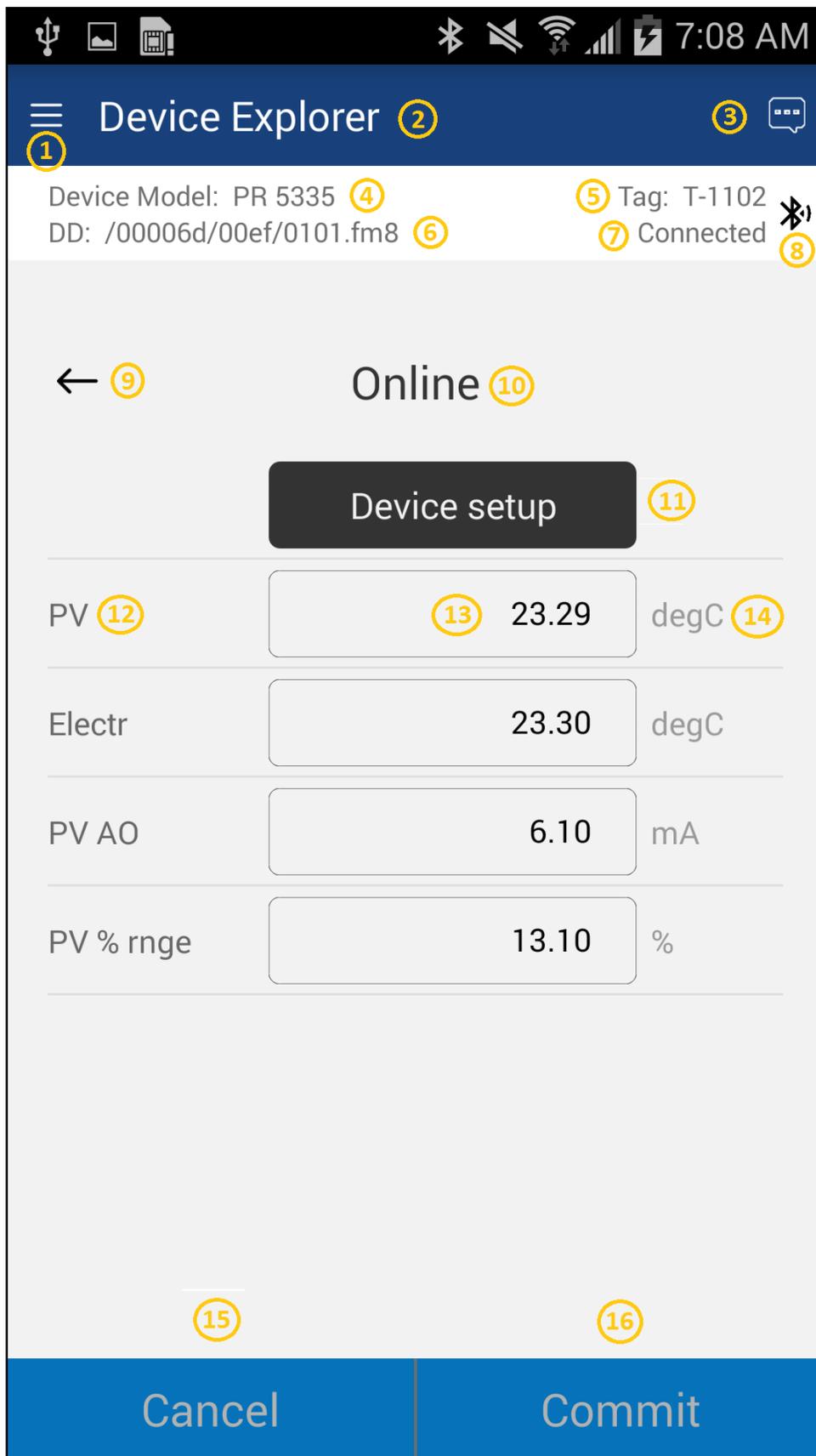
1 - Window Navigation icon, aka "Hamburger" icon

2 - Window name
3 - Device Status Icon
4 - Device model of connected HART device
5 - Tag name of connected HART device
6 - DD loaded for connected HART device
7 - Modem status
8 - Communication indication
9 - Back softkey for menu navigation
10 - Menu title for current menu
11 - Sub menu
12 - Label
13 - Data
14 - Units
15 - Commit, save edit changes to connected HART device
16 - Cancel, return edit changes to original value

5.2.2   Navigating the Window Menus using the ☰ icon (aka "Hamburger")

DevComDroid has several windows with specialized information.   Press the Hamburger icon and the following Window appears, details in Section 6.5: Note that the red icon indicates the active Window when the Hamburger icon was pressed. This helps the user return to the previous window.

Menu	Explanation
DevCom ☐ New Device ◪ Device Explorer ⚙ Settings ⁎ Bluetooth Devices ☑ Document Device ⬇ Download Config ⊞ DD Library ▢ Licensing ⓘ About ⊗ Exit	**DevCom –** App name **New Device -** Connect to a new device or reconnect to the same device. **Device Exporer** – Main device window with device data **Settings** – Launches Settings Window **Bluetooth Devices** – Launches Bluetooth Selection Window **Document Device** – Launches the Document Device Window Download Config – Launches the Saved Configurations Window **DD Library** – Launches the DD Library Window. **Licensing** – Launches the License Window. **About** – Shows copyright information, support information, and application Serial Number. **Exit** - Exit DevComDroid.

5.2.3 Using the Help Menus

When you select a parameter label, a window will appear with information about the parameter. Below is an example:
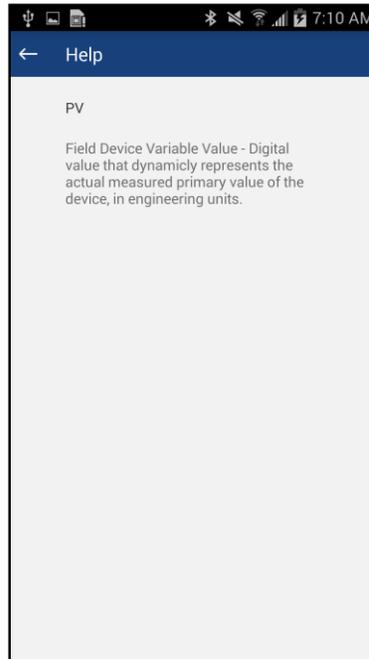
5.2.4 Menu Color Scheme

DevComDroid application uses different colors to represent different elements of the application. The following table lists the colors and their meanings:

Color Example	Meaning
<Menu Name>	Indicates a menu in the navigation tree
<Label> <Data> ▼	Indicates an "Enumerated Variable" item (Note the triangle)
<Label> <Data>	Indicates a Read Only "Variable" item (Note the data background is gray)
<Label> <Data>	Indicates an Editable "Variable" item (Note the data background is white)
<Method Name>	Indicates a "Method" (Standard Operating Procedure) item
<Edit Display Name>	Indicates an "Edit Display" item

6   FUNCTIONS AND BASIC OPERATIONS

6.1   Overview

DevComDroid allows the user to monitor and configure a single device at a time in the field. Each device had a DD that determines what device information is present. A DD may contain any of the following parameters/elements:

Variable

A variable is defined as the data contained in the device (e.g. Device Firmware Version). There are three types of variables:

Numeric – Variable data consists of numbers
Text – Variable data consists of text and/or numbers
Enumerated – Variable data is from a list of valid data points.

The above variables are further definable as follows:

Editable Variable – It allows the operator to modify the value and download it to the device.
Non-Editable Variable – It is a read-only data from the device.

Edit Display

This option is used to view a group of parameters. You can also modify a single parameter from this group, based on which other parameters of the device get altered.

For example, if the Engineering Unit of the device is modified, the corresponding Low Limits and High Limits change as per the Engineering Unit set.

Method / Standard Operating Procedure (SOP)

This option helps to perform various tests on the device for instance, Self Test and Loop Test. A Method or SOP is a series of steps that are executed in a sequence results in the completion of some device related tasks. When a method gets invoked, it gives various warning messages and options to the user, by which the user can thoroughly test the device. If a test is aborted by operator command at any stage of the sequence, the method invokes additional steps to bring the device back to its original state before the test.

6.2   Configuring Device Information

6.2.1   Overview

DevComDroid allows you to view and configure the field device parameters based on the device description (DD). The related variables are grouped under various menus of different levels as defined in the DD file. The following table describes the details about the device configuration:

Step	Action
1	Ensure that the application is running and communications have been established:

Step	Action

| 2 | There are three types of variables: Numeric, Text, and Enumerated. In turn these variables can be read/write and read only. Dynamic variables are also read only.

Following points describe how the device parameters represents their status when connected to DevComDroid:

White Data Background: Modifiable Values

Gray Data Background: Read only Values

Data field with gray triangle: Enumerated data |
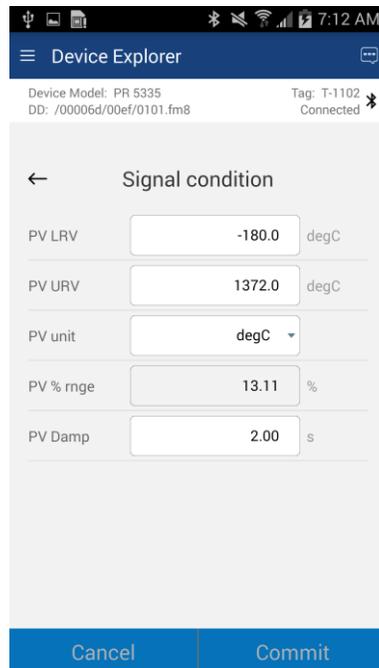
Step	Action
3	Select the parameter and configure the values, as required.
4	The subsequent topics explain how to configure device parameters.

6.2.2 Variable Edit

To edit a parameter of the connected device, perform the following steps:

Step	Action
1	Ensure that the application is running and communications have been established:
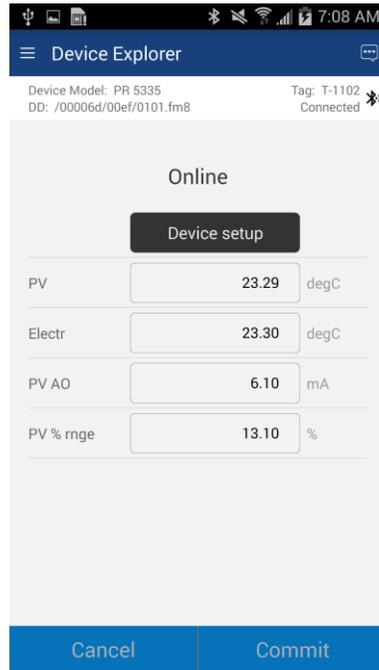
| 2 | Select the menu where the editable parameter is present as shown below. For this example we are editing PV Damp: |

| 3 | Select the variable data to edit it. The existing data will be |
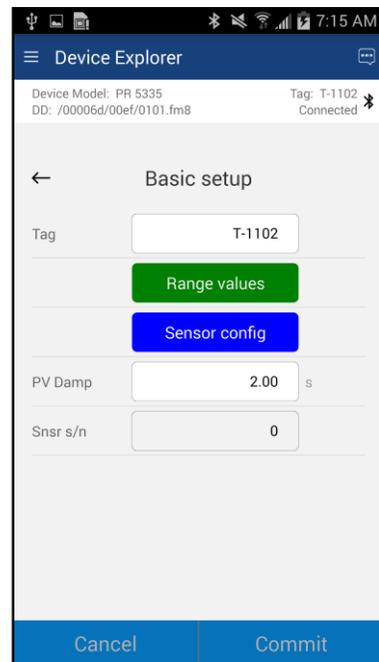
Step	Action

highlighted and an appropriate soft keyboard will appear:
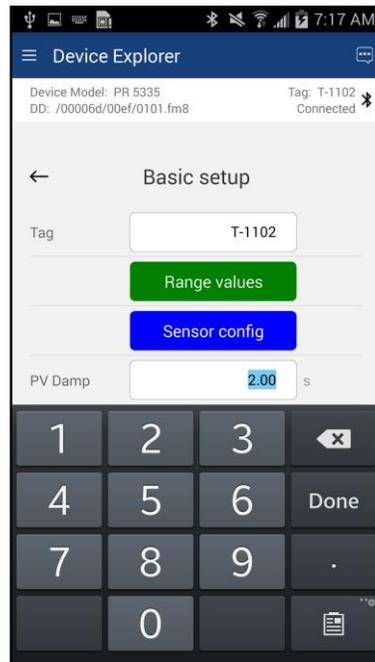
4   Make the changes to the parameter value, as required.
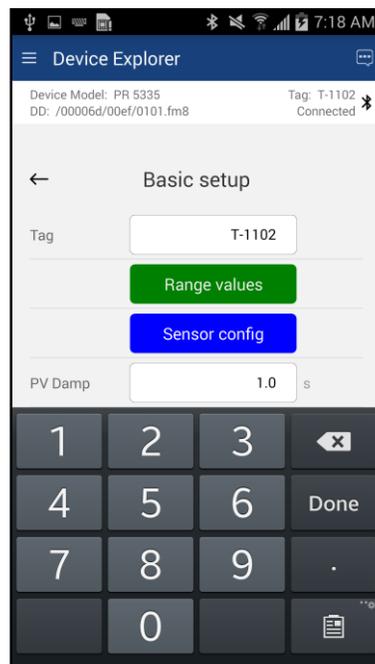
5   Use the Back key or "Done" button to remove the keyboard.
        Note that the changed variable data background is now Yellow
        and the "Commit" and "Cancel" buttons are also Yellow:

Step   Action
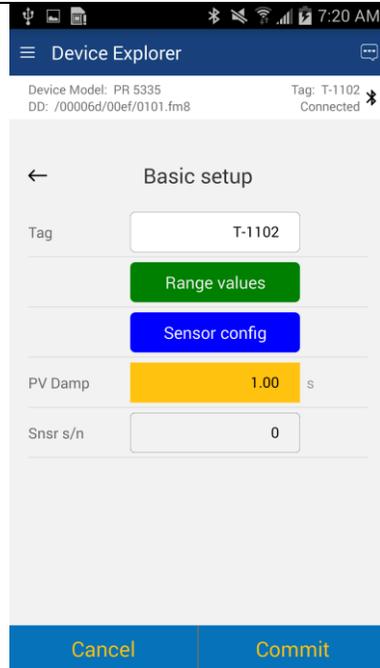
6   Click on the "Commit" button to send the new value to the
       device. The buttons and data return to white when complete:
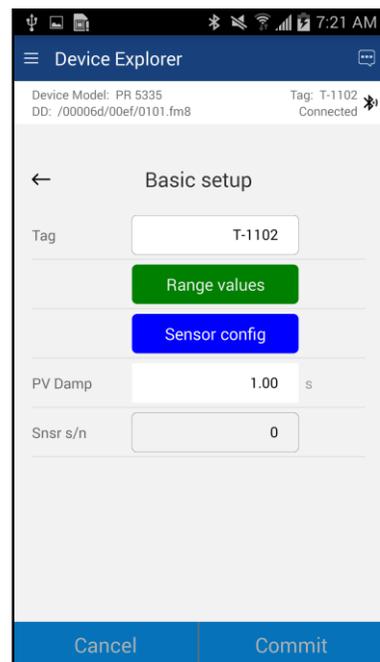
7   For Enumerated variables, the process is very similar. Start by
       selecting the menu where the desired parameter is located:

Step   Action
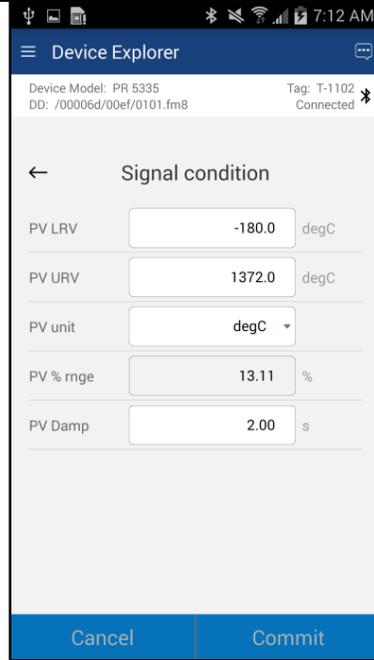
8   Select the variable data to edit it. A list will appear with the valid values to use:
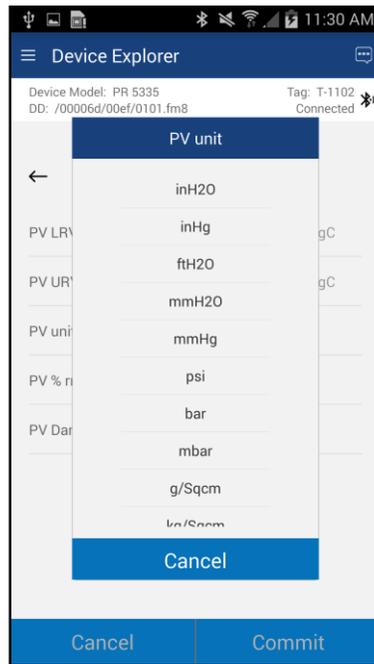
9   Select the value you wish to use.

10   Once selected, the list will disappear and the new value will be inserted into the data field. Note that the changed variable background is now Yellow and the "Commit" and "Cancel" buttons are also Yellow:

Step   Action

11   Click on the "Commit" button to send the new value to the
        device:

6.2.3   Edit Display

The Edit Display is a variation on the Variable edit. An additional window helps the user view a group of parameters based on the DD. You can also modify a single parameter from this group. Parameters linked to the edited field will be updated automatically

To view and configure these variables, perform the following steps:

Step	Action

1   Ensure that the application is running and communications have been established:
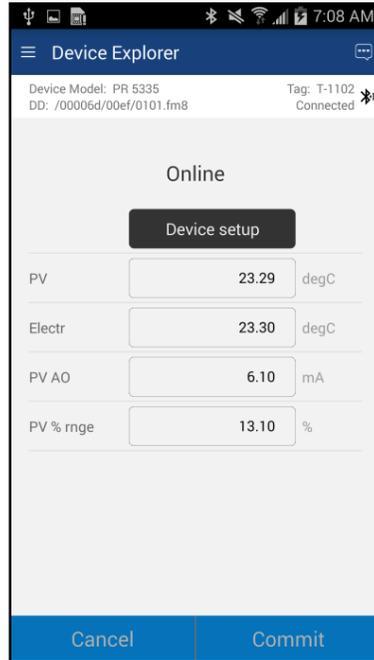
2   Select the menu where the editable parameter is present as shown below. For this example we want to edit URV from the Range Values Edit Display:
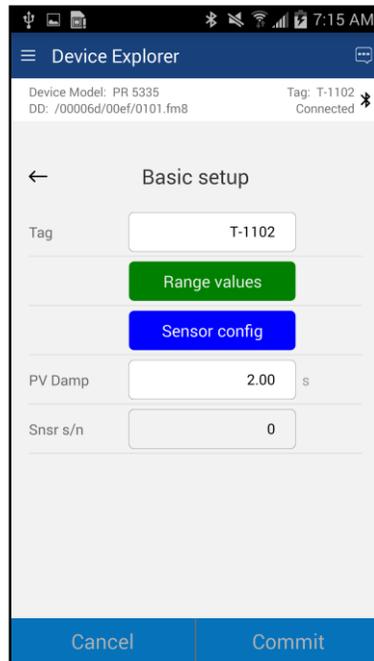
3   Once selected, the Edit Display looks like a regular menu as seen here:

Step   Action
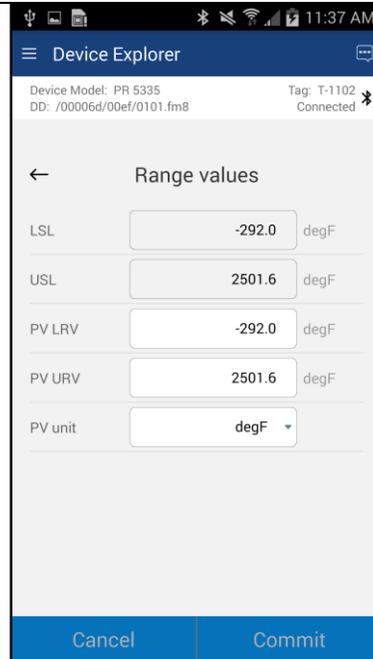
4   Select the parameter you wish to edit from within the Edit
        Display box. The following dialog box appears on the screen:
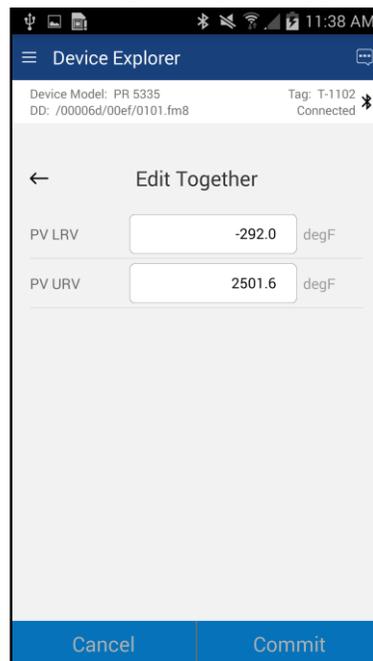
5   Make the change to the value, as required.

6   Click on the "Commit" button to send the new value to the
        device.

6.2.4 Executing Methods or Standard Operating Procedures

Methods are defined in the DD file for the device that DevComDroid is connected to. You can select the Method and execute it for calibrating the device, trouble shooting, etc. Method execution leads you through a number of steps, like in a wizard.

A Few examples of methods include,

Set high and low range calibration points
Calibrate the device
Run the advanced diagnostic test procedure
Execute tests to gather information on device operation.

To execute a Method, perform the following steps:

Step	Action
1	Ensure that the application is running and communications have been established:

2	Select the menu where the method is present and select the desired Method:

Step   Action
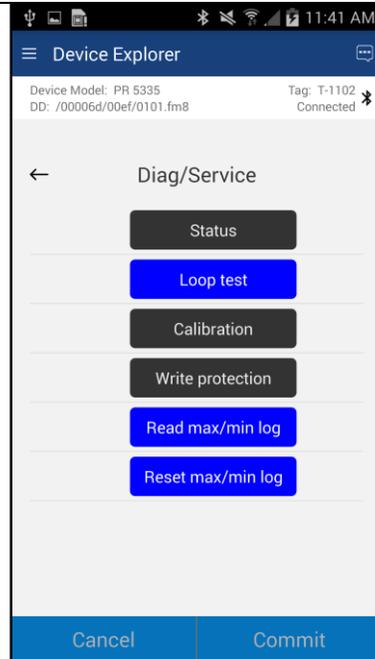
3   Below is an example of a Method window:
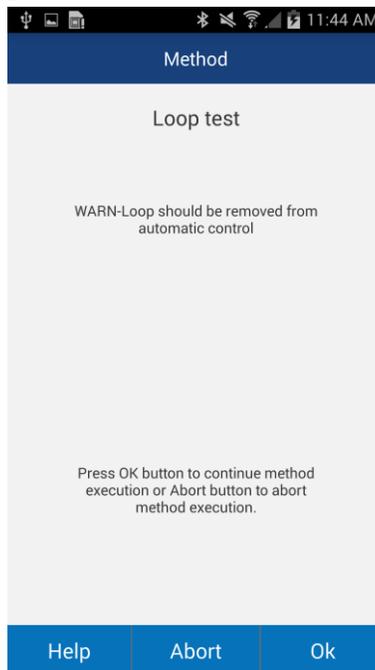
4   Click "OK" to move to the next dialog in the Method sequence. Some methods require more user input such as selecting an enumerated value as below:

Step   Action
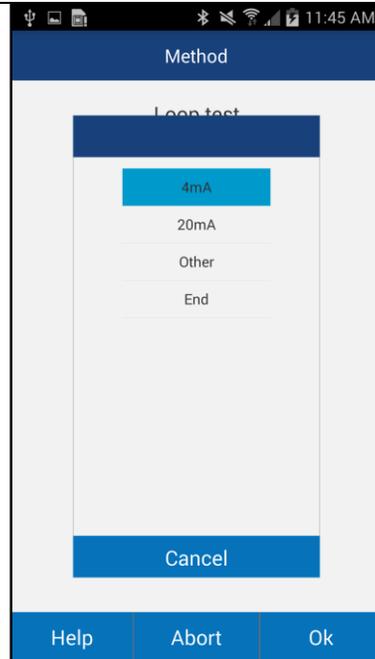
5   Click "Abort" to cancel the Method execution.

6   Click "Help" to get specific help for that step of the Method.
         This Help information is provided by the device DD.

6.3   Calibrating HART Field Devices

Calibration of field devices and loop test are achieved by executing the Methods or Standard Operating Procedures that are specific to device. Methods are defined based on the test parameters specific to the device, providing information for the calibration of that device.

See the previous section for Method execution.

6.4   Viewing the Device Status

DevComDroid provides the user with the ability to monitor the device specific status of the device.

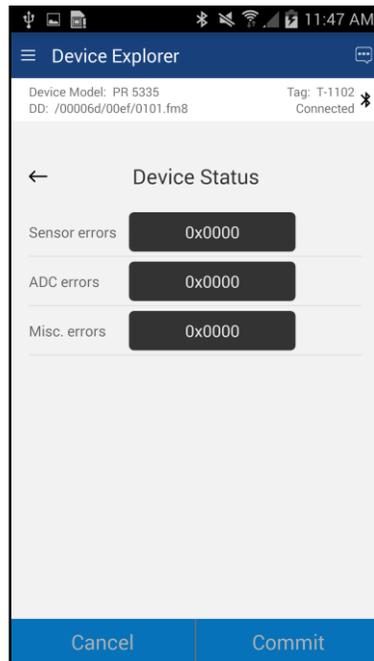To view the device and status, perform the following steps:

Step   Action

1   Ensure that the application is running and communications have
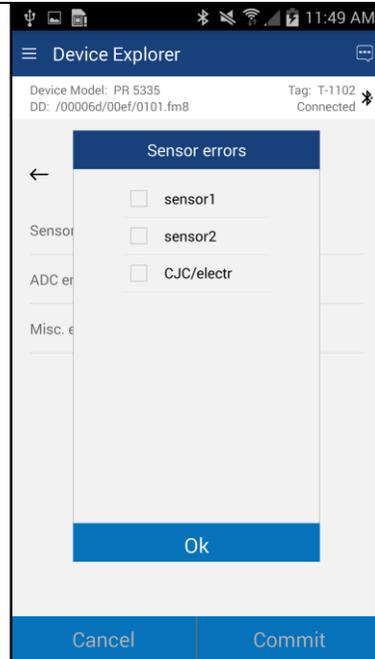   been established:
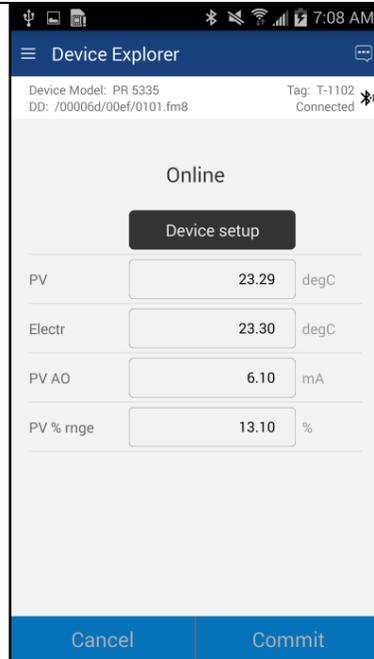
Step   Action

2   Select the Device Status icon. The following window is displayed:

The status byte is shown for each status point.

3   To see more details on which status point is active, select the status data. Here is a sample:

Step   Action

4   Click the Back hardware button to close the Device Status
         window. Or you can press the ← soft key.

6.5   Window Detailed Description
6.5.1 Settings

There are several Settings that may need to be changed by the user to perform a desired activity. Below is a description of what Settings are available:

Step   Action

1   Ensure that the application is running. Communications do
         NOT need to have been established.

2   Select ≡ → **Settings** from the main window. The Settings
         window is displayed:

Step   Action
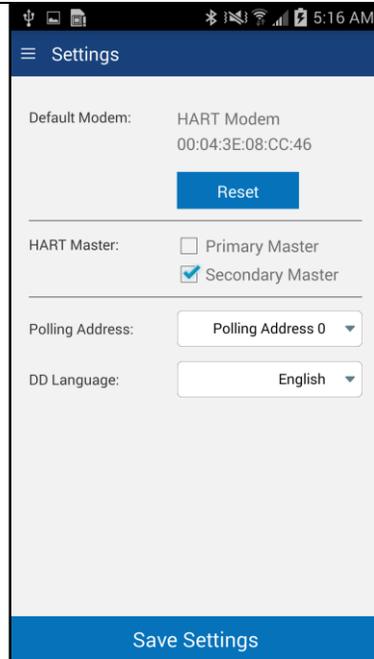
Each Setting is explained below.

6.5.1.1 Default Modem
This option allows the user to disconnect the modem. Press "Reset" to clear the modem from App memory.
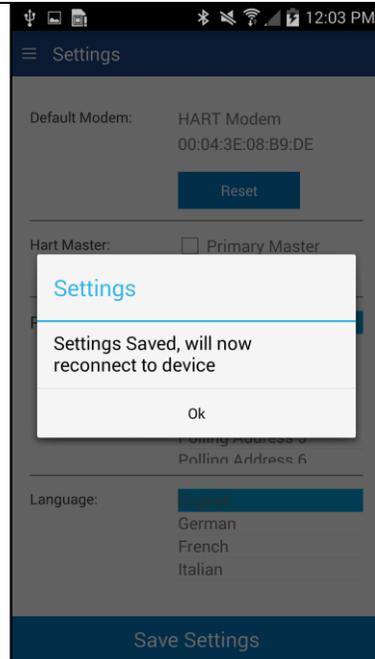
6.5.1.2 HART Master
This option allows the user to select Primary Master or Secondary Master for Multi-master systems.

Step	Action
1	Select desired HART Master.
2	Press "Save Settings" If a new HART Master was selected the following message will be shown:

Step   Action

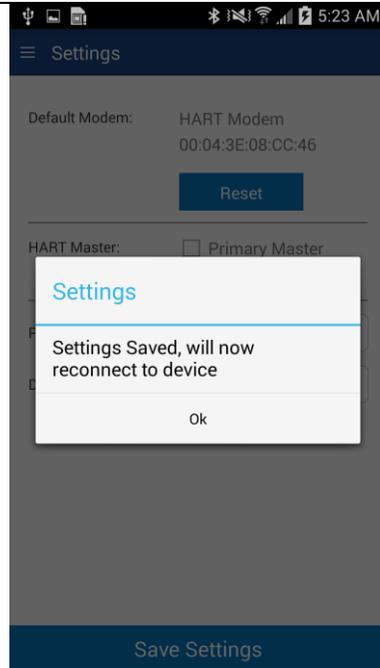| 3 | Press "OK" to return to the Device Explorer window. |

6.5.1.3 Polling Address
This option allows the user to set the address to look for devices on Multi-drop networks. The default is address 0.

Step	Action
1	Press the triangle next to the current Polling Address selection. A drop down list will appear with all the valid Polling Addresses. You may need to scroll to view the address you want.
2	Press the desired Polling Address.
3	Press "Save Settings". If a new Polling Address was selected the following message will be shown:

Step   Action

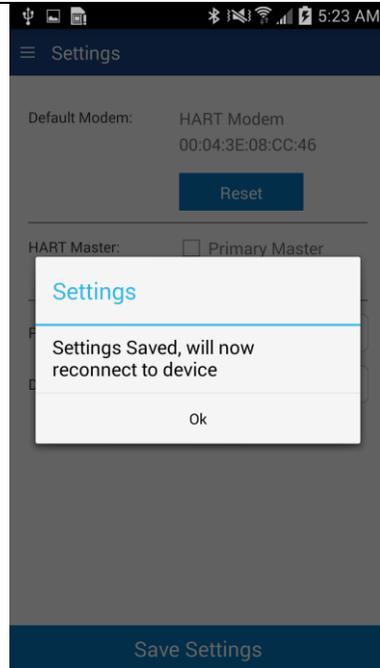| 4 | Press "OK" to return to the Device Explorer window. |

6.5.1.4 DD Language

This option allows the user to select which language the DD data will be presented. Note that all DD's do not have each of these languages. In this case, English will be used. Also note that only the DD data is affected (currently), DevComDroid specific items will always be English.

| Step	Action
1	Press the triangle next to the current DD Language. A drop down list will appear with all the valid DD Languages. You may need to scroll to view the language you want.
2	Press the desired DD Language.
3	Press "Save Settings". If a new DD Language was selected the following message will be shown:

Step   Action

| 4 | Press "OK" to return to the Device Explorer window. |

6.5.2 Bluetooth Devices

This window allows the user to view the current modem or to change what modem to use for communications.

Step	Action
1	The Window will show all available Bluetooth devices with the current selected modem highlighted and/or marked with the Bluetooth icon.

Step   Action
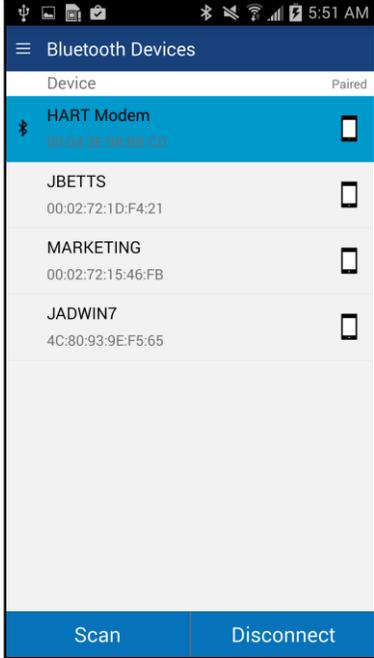
2	Tapping the current HART Modem will restart the connection.
3	Tapping "Scan" will look for nearby Bluetooth devices.
4	Tapping "Disconnect" will remove the connection to the current HART Modem.

6.5.3 Document Device

HART Device configurations can be saved to memory as a comma delimited text file and formatted PDF file to document the device.

To save device configurations to disk, perform the following steps:

Step   Action

| 1 | Ensure that the application is running and communications have been established: |

Step   Action

2   Select ☰ → **Document Device** from the main window. The
        Document Device window is displayed:

3   The default directory is \ProComSol. The default file name is
        Tag_Device ID. The filename can be changed by the user. Edit
        the directory and filename as needed.

4   Enter Notes in the Notes field if desired. Enter Technician name
        in the Technician field if desired.

5   Enter Header and Footer information for the PDF file if desired.

Step	Action
6	Press the "Save Configuration" button to save device configuration to text file and pdf file.
7	When complete, the pdf file will be displayed. You may need to select which App you want to use to display the file.

6.5.4   Download Config

The saved HART Device configurations can be viewed and even downloaded to other devices.

To view saved device configurations, perform the following steps:

Step	Action
1	Select ≡ → **Download Config** from the main window. The Saved Configurations window is displayed:
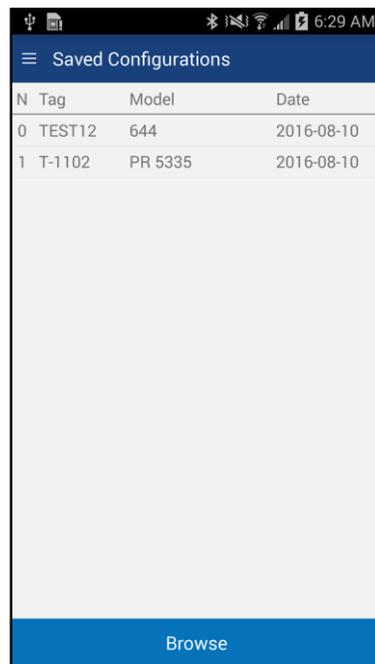
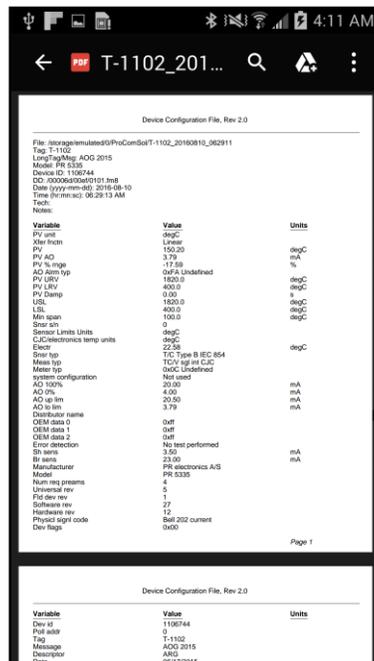| Step	Action
2	The saved configurations are shown in the order they were created. You can scroll up and down the list if necessary.
3	Tap a configuration to view details of the configuration. When N1 is tapped, the Configuration Detail window is displayed:
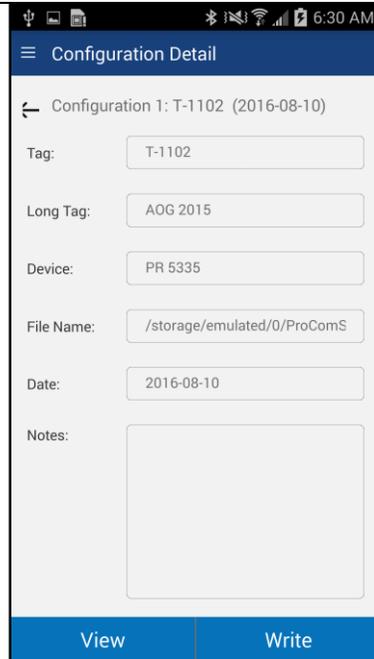
Step   Action

This window shows the details of the saved configuration.

### 6.5.4.1 View Saved Configuration

Step	Action
1	From the Configuration Detail window, press View.
2	The PDF file for the saved configuration is shown using the Android device PDF viewer:

Step	Action
3	Press the Back key to dismiss

6.5.4.2 Configuration Write

| Step	Action
1	Ensure that the application is running and communications have been established.
2	From the Configuration Detail window, press Write. The following Prompt is displayed:
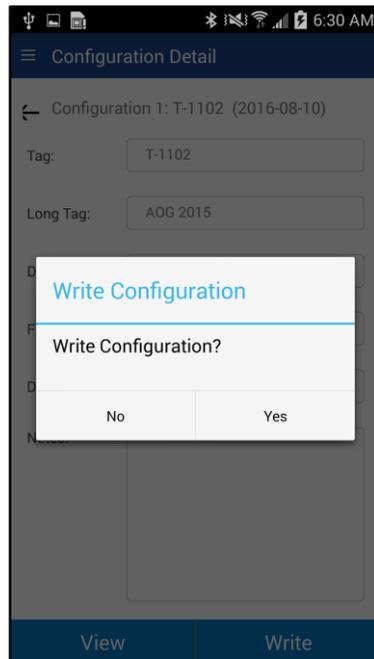
Step	Action
3	Press Yes to continue or No to go back to the Configuration Detail window.
4	If Yes, pressed, the following prompt appears:

Step   Action
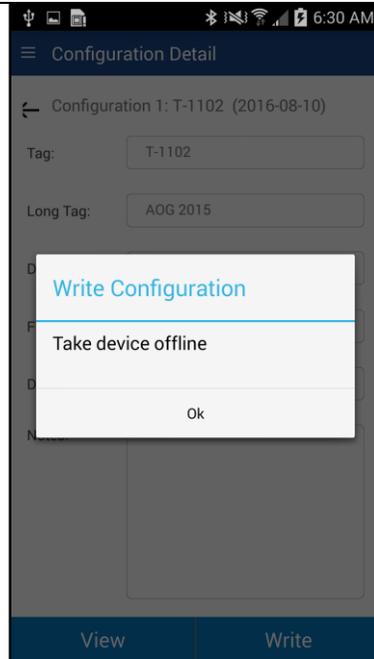
This alerts the user that a configuration change can upset the process and the device should not be connected to the process.

5   Press OK when device is not connected to the process.

6   When the configuration write is complete, the following prompt will be displayed:
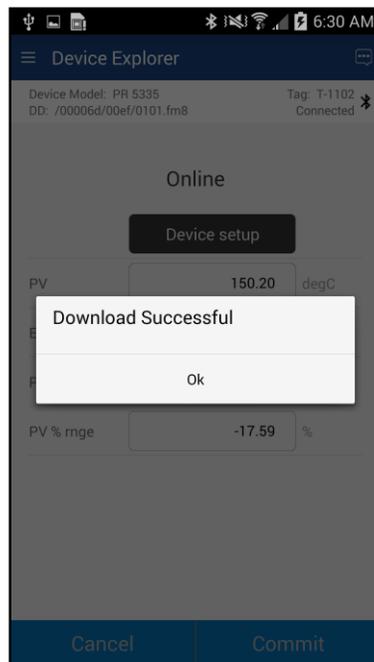
Also note that the connection to the device has been reinitialized in order to refresh the data in the App memory.
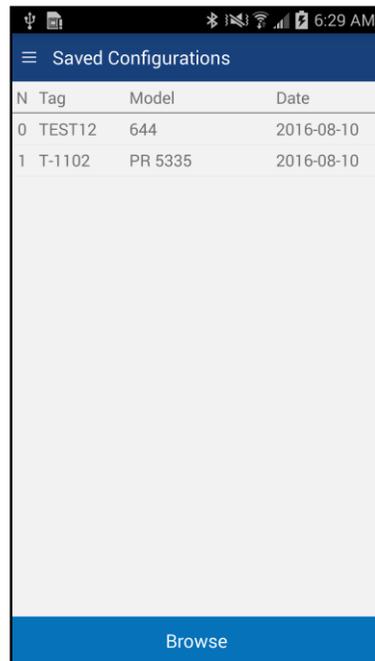
6.5.4.3 Configuration Browse

This function allows the user to bring configurations saved from another source into their device. The other source can be other DevComDroid users.
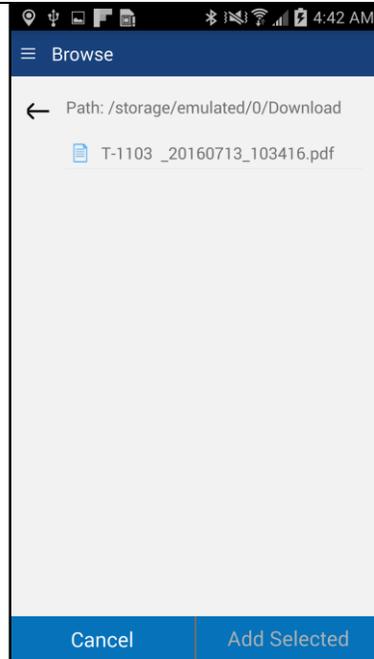
Step	Action
1	Copy the zzz.pdf, zzz.dc, and zzz.txt (where zzz is the configuration root file name) files to the Android device. The recommended directory is the /Download directory
2	Select ☰ → **Download Config** from the main window. The Saved Configurations window is displayed:

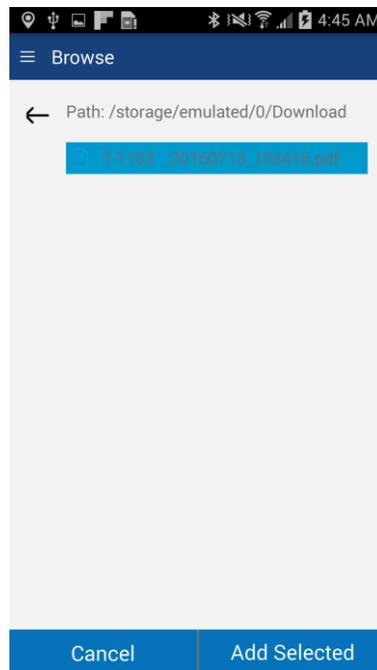|	
3	Press Browse. The Browse window is displayed:

Step   Action

This window will just show the .pdf files. You can navigate to other directories using the Back key.

4   Select the desired configuration to add to the device. Once selected the Add Selected button becomes active:

5   Press Add Selected, and the following prompt appears when the Configuration Add is complete:

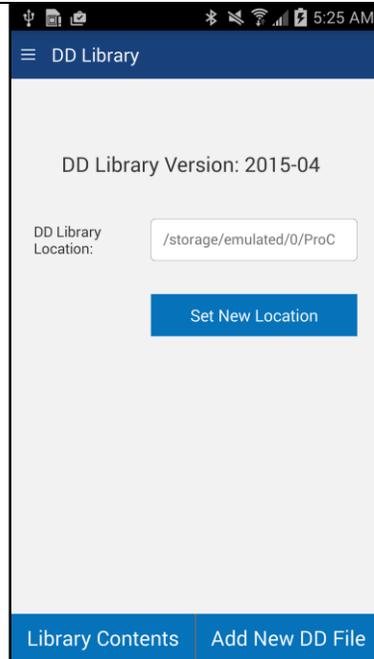Step   Action
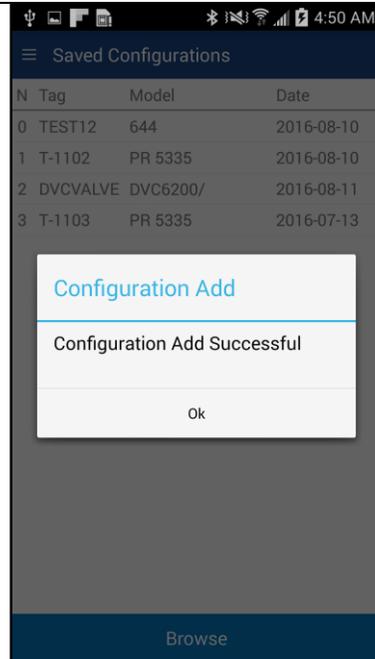
6.5.5   DD Library

This window allows the user to move the DD Library location, view the library contents, and even add new DD files to the library.

6.5.5.1 Move DD Library

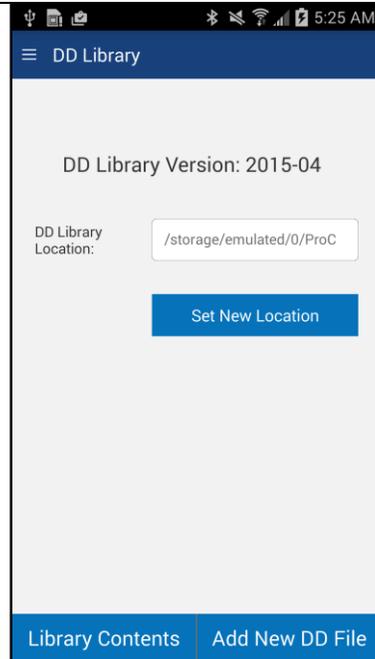| Step	Action
1	Ensure that the application is running. Communications do NOT need to have been established.
2	Select ☰ → **DD Library**. The DD Library Window is displayed:

Step   Action

3   Enter the new DD Library location in the "DD Library Location Box." This could be an SD Card for example.

4   Press a "Set New Location". The App will now look for the DD Library at the new location.
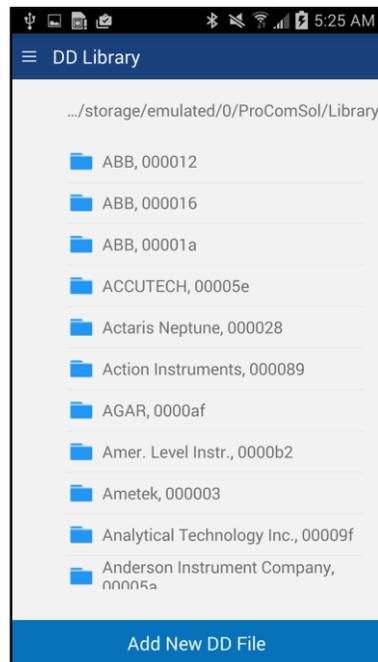
6.5.5.2 View DD Library

Step   Action

1   Ensure that the application is running. Communications do NOT need to have been established.

2   Select ☰ → **DD Library**. The DD Library Window is displayed:
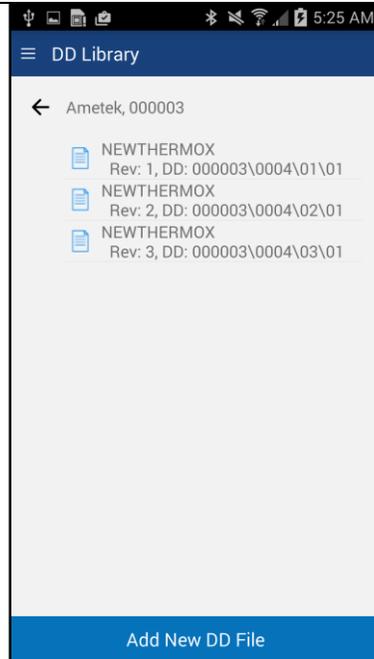
Step   Action

3   Tap "Library Contents" The following Window is displayed:

The list of manufacturers is shown in alphabetic order.

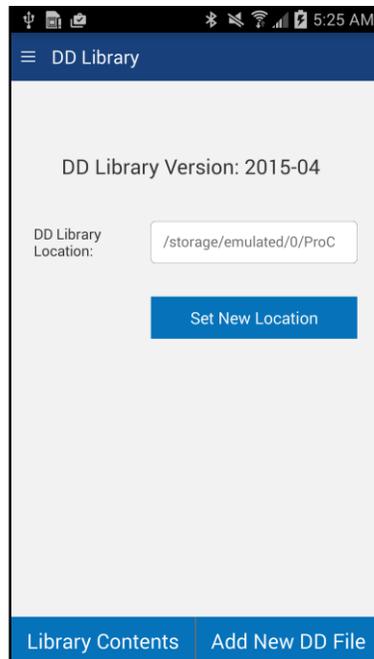4   Select a manufacture and the list of devices for that manufacturer are displayed:
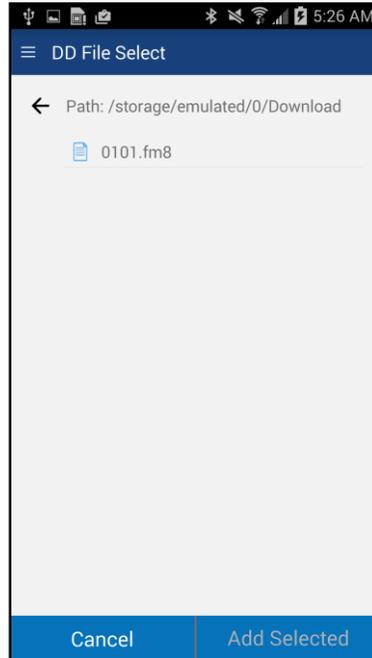
Step   Action

6.5.5.3 Add File to DD Library

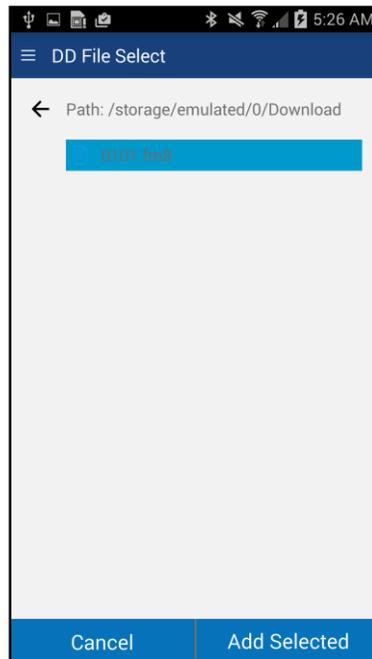| Step	Action
1	Ensure that the application is running. Communications do NOT need to have been established.
2	Select ☰ → **DD Library**. The DD Library Window is displayed:

Step	Action
3	Tap "Add New DD File" The following file selection Window is displayed:

Use the <- key to navigate the device file structure until you find the file you would like to add.

| 4 | Once the desired file is found, select it to activate the "Add Selected" Button. |

Tap "Add Selected" to add the file to the DD Library.

6.5.6 Licensing

The user may need to review license status to get the number of days left in the evaluation for example. This window shows License details.

Step	Action
1	Ensure that the application is running. Communications do NOT need to have been established.
2	Select ☰ → **Licensing**. The Licensing Window is displayed:
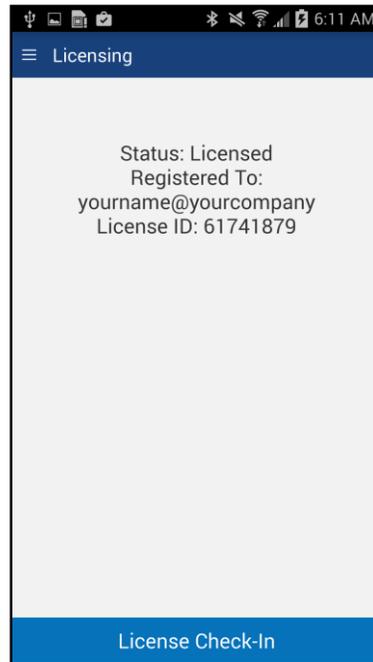
This image shows an Activated license.

|	
3	Press the "License Check-In" to send the license back to our server. It can then be used on another Android device. This makes sharing licenses easy and convenient.

6.5.7 About

This window summarizes revision status and provides support contact information for the DevComDroid App:

| Step	Action
1	Ensure that the application is running. Communications do NOT need to have been established.
2	Select ☰ → **About** from the main window. The About window is displayed:

Step   Action
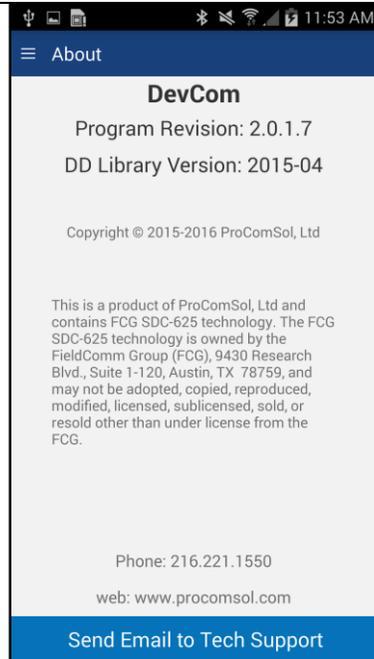
3   Press the "Send email to Tech Support" to bring up your Email
        App which you can then send to tech support to get help for your
        issue.

6.6 PC Interface to Mobile Device

The Windows Explorer program is a convenient way to copy configuration files back to the PC for archiving and storage. The Android device looks like a disk to the Windows file system. Below is an example screen shot:
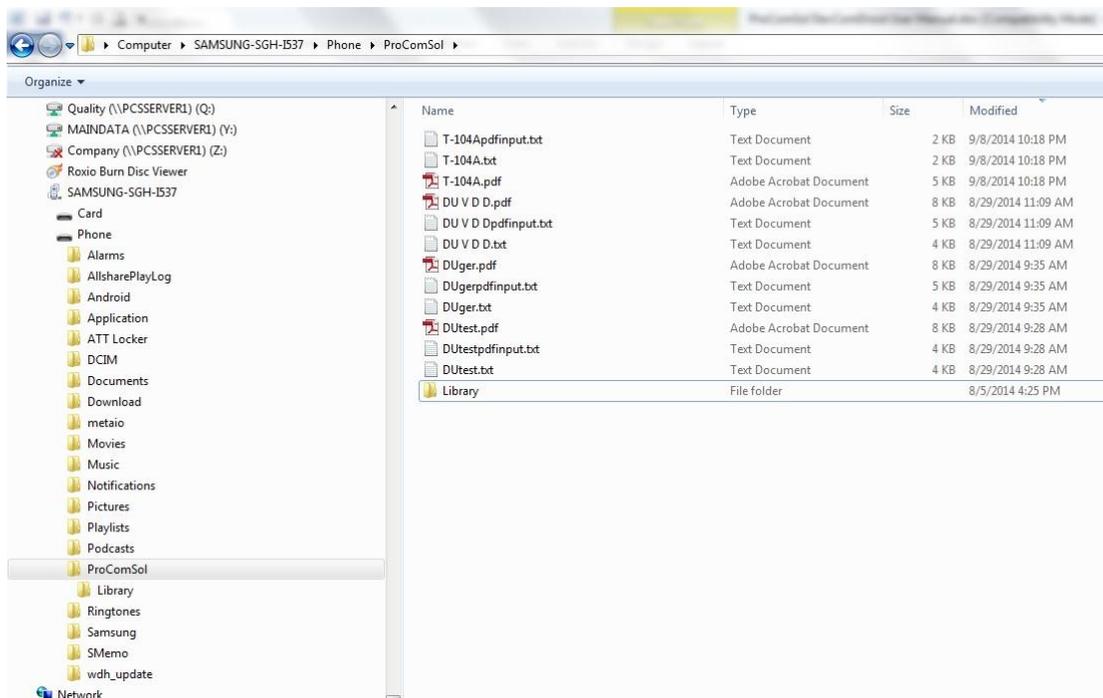
The default location for the saved configuration files is the directory "\ProComSol". Simply highlight the desired files and copy to your PC. Once on the PC, they can be viewed or imported to many different software packages.

6.7   DD Library Updates

Users who provide their Email address will be notified when DD Library Updates are available. The Email will provide detailed instructions on how to obtain the update. To update the DD Library, follow Section 4.2.1, Install DD Library.

Appendix A

Troubleshooting Guide

<u>Problem:</u>
Will not communicate

Hardware Check:

Verify the following:
1. Paired to correct HART Modem
2. Loop power supply is on.
3. Loop resistance between 250 ohms and 1Kohms.
4. Loop current within HART limits.
5. If multi drop configuration, all transmitters in loop have unique addresses.
6. HART interface hardware connected across loop resistor or across transmitter terminals.

Appendix B

Contact Information

www.smar.com or techsupport@smar.com